

COLORADO RENEWABLE ENERGY STANDARD

3664. Net Metering

- (a) All QRUs shall allow the customer's retail electricity consumption to be offset by the electricity generated from Eligible Renewable Energy Resources on the customer's side of the meter that are interconnected with the QRU, provided that the generating capacity of the customer's facility meets the following two criteria:
 - (I) The rated capacity of the generator does not exceed 2000 kW; and
 - (II) The rated capacity of the generator does not exceed the customer's service entrance capacity.
- (b) If a customer with an Eligible Renewable Energy Resource generates Renewable Energy pursuant to subsection (a) of Rule 3664 in excess of the customer's consumption, the excess kilowatt-hours shall be carried forward from month to month and credited at a ratio of 1:1 against the customer's retail kilowatt-hour consumption in subsequent months. Within 60 days of the end of each calendar year, or within 60 days of when the customer terminates its retail service, the QRU shall compensate the customer for any accrued excess kilowatt-hour credits, at the QRU's average hourly incremental cost of electricity supply over the most recent calendar year.
- (c) The QRU shall file tariffs that comply with these rules within 30 days of the effective date of these rules.
- (d) A customer's facility that generates Renewable Energy from an Eligible Renewable Energy Resource shall be equipped with metering equipment that can measure the flow of electric energy in both directions. The QRU shall utilize a single bi-directional electric revenue meter.
- (e) If the customer's existing electric revenue meter does not meet the requirements of these rules, the QRU shall install and maintain a new revenue meter for the customer, at the company's expense. Any subsequent revenue meter change necessitated by the customer shall be paid for by the customer.
- (f) The QRU shall not require more than one meter per customer to comply with this Rule 3664. Nothing in this Rule 3664 shall preclude the QRU from placing a second meter to measure the output of a Solar Renewable Energy System for the counting of RECs subject to the following conditions:
 - (I) For customer facilities over 10 kW, a second meter shall be required to measure the Solar Renewable Energy System output for the counting of RECs.
 - (II) For systems 10 kW and smaller, an additional meter may be installed under either of the following circumstances:
 - (A) The QRU may install an additional production meter on the Solar Renewable Energy System output at its own expense if the customer consents; or

- (B) The customer may request that the QRU install a production meter on the Solar Renewable Energy System output in addition to the revenue meter at the customer's expense.
- (g) A QRU shall provide net metering service at non-discriminatory rates to customers with Eligible Renewable Energy Resources. A customer shall not be required to change the rate under which the customer received retail service in order for the customer to install an eligible renewable energy resource. Nothing in this rule shall prohibit a QRU from requesting changes in rates at any time.

3665. Interconnection

NOTE: The following rule is numbered using the FERC's numbering convention and not the Colorado Commission's numbering convention. This rule largely tracks FERC Order 2006.

Small Generator Interconnection Procedures (SGIP)

The following Small Generator Interconnection Procedures (SGIP) shall apply to all small generation resources including Eligible Renewable Energy Resources connected to the utility. Each utility shall also provide, on their web site, interconnection standards not included in these procedures.

- (a) General Overview
 - (i) Applicability
 - (1) A request to interconnect a certified Small Generating Facility no larger than 2 MW shall be evaluated under the Level 2 Process. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kW shall be evaluated under the Level 1 Process. A request to interconnect a Small Generating Facility larger than 2 MW but no larger than 10 MW or a Small Generating Facility that does not pass the Level 1 or Level 2 Process, shall be evaluated under the Level 3 Process.
 - (2) Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 of the body of these procedures.
 - (3) Prior to submitting its Interconnection Request, the Interconnection Customer may ask the utility interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The utility shall respond within 15 Business Days.
 - (4) Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Commission expects all utilities, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
 - (5) References in these procedures to interconnection agreement are to the Small Generator Interconnection Agreement (SGIA).

- (ii) **Pre-Application**
The utility shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the utility's Internet web site. Electric system information for specific locations, feeders, or small areas shall be provided to the Interconnection Customer upon request and may include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the utility's System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The utility shall comply with reasonable requests for such information unless such information is proprietary or confidential and cannot be provided pursuant to a confidentiality agreement.
- (iii) **Interconnection Request**
The Interconnection Customer (IC) shall submit its Interconnection Request to the utility, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date- and time-stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the utility within three Business Days of receiving the Interconnection Request which notification may be to an e-mail address or fax number provided by IC. The utility shall notify the Interconnection Customer within ten Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the utility shall provide, along with the notice that the Interconnection Request is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the utility.
- (iv) **Modification of the Interconnection Request**
Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the utility and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.
- (v) **Site Control Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:**
 - (1) Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;
 - (2) An option to purchase or acquire a leasehold site for such purpose; or
 - (3) An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.

(vi) Queue Position

The utility shall place Interconnection Requests in a first come, first served order per feeder and per substation based upon the date- and time-stamp of the Interconnection Request. The order of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. At the utility's option, Interconnection Requests may be studied serially or in clusters for the purpose of the system impact study.

(b) Level 2 - Fast Track Process

(i) Applicability

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the utility's System if the Small Generating Facility is no larger than 2 MW and if the Interconnection Customer's proposed Small Generating Facility meets the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures.

(ii) Initial Review

Within 15 Business Days after the utility notifies the Interconnection Customer it has received a complete Interconnection Request, the utility shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the utility's determinations under the screens.

(1) Screens

- A. The proposed Small Generating Facility's Point of Interconnection must be on a portion of the utility's Distribution System that is subject to the Tariff.
- B. For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section's annual peak load as most recently measured at the substation or calculated for the line segment. A line section is that portion of a utility's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.
- C. The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 % to the distribution circuit's maximum fault current at the point on the distribution feeder voltage (primary) level nearest the proposed point of change of ownership.
- D. The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

- E. Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the utility's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

- F. If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.
- G. If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20 % of the nameplate rating of the service transformer.
- H. No construction of facilities by the utility on its own system shall be required to accommodate the Small Generating Facility.
- I. Interconnections to Distribution Networks
- 1) For interconnection of a proposed Small Generating Facility to the load side of spot network protectors serving more than a single customer, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 % of a spot network's maximum load or 300 kW. For spot networks serving a single customer, the Small Generator Facility must use inverter-based equipment package and either meet the requirements above or shall use a protection scheme or operate the generator so as not to exceed on-site load or otherwise prevent nuisance operation of the spot network protectors.
 - 2) For interconnection of a proposed Small Generating Facility to the load side of area network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 10% of an area network's minimum load or 500 kW.

- 3) Notwithstanding sub-sections (1) or (2) above, each utility may incorporate into its interconnection standards, any change in interconnection guidelines related to networks pursuant to standards developed under IEEE 1547 for interconnections to networks. To the extent the new IEEE standards conflict with these existing guidelines, the new standards shall apply. In addition, and with the consent of the utility, a Small Generator Facility may be interconnected to a spot or area network provided the Facility utilizes a protection scheme that will prevent any power export from the customer's site including inadvertent export under fault conditions or otherwise prevent nuisance operation of the network protectors.
- (2) If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the utility will provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.
- (3) If the proposed interconnection fails the screens, but the utility determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the utility shall provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.
- (4) If the proposed interconnection fails the screens, but the utility does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the utility shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.
- (5) Customer Options Meeting
If the utility determines the Interconnection Request cannot be approved without minor modifications at minimal cost; or a supplemental study or other additional studies or actions; or at significant cost to address safety, reliability, or power quality problems, within the five Business Day period after the determination, the utility shall notify the Interconnection Customer and provide copies of the data and analyses underlying its conclusion. Within ten Business Days of the utility's determination, the utility shall offer to convene a customer options meeting with the utility to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the utility's determination, or at the customer options meeting, the utility shall:
- A. Offer to perform facility modifications or minor modifications to the utility's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the utility's electric system; or
 - B. Offer to perform a supplemental review if the utility concludes that the supplemental review might determine that the Small Generating Facility could continue to qualify for interconnection pursuant to the Fast Track

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Process, and provide a non-binding good faith estimate of the costs and time of such review; or

- C. Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the Level 3 Study Process.

(iii) Supplemental Review

If the Interconnection Customer agrees to a supplemental review, the Interconnection Customer shall agree in writing within 15 Business Days of the offer, and submit a deposit for the estimated costs provided in (iii) (1) (B). The Interconnection Customer shall be responsible for the utility's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the utility will return such excess within 20 Business Days of the invoice without interest.

- (1) Within ten Business Days following receipt of the deposit for a supplemental review, the utility will determine if the Small Generating Facility can be interconnected safely and reliably.
 - A. If so, the utility shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days.
 - B. If so, and Interconnection Customer facility modifications are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the utility shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days after confirmation that the Interconnection Customer has agreed to make the necessary changes at the Interconnection Customer's cost.
 - C. If so, and minor modifications to the utility's electric system are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under the Level 2 Fast Track Process, the utility shall forward an executable interconnection agreement to the Interconnection Customer within ten Business Days that requires the Interconnection Customer to pay the costs of such system modifications prior to interconnection.
 - D. If not, the Interconnection Request will continue to be evaluated under the Level 3 Study Process.

(c) Level 3 - Study Process

(j) Applicability

The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility with the utility's System if the Small Generating Facility (1) is larger than 2 MW but no larger than 10 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.

(ii) Scoping Meeting

- (1) A scoping meeting will be held within ten Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties.

The utility and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.

- (2) The purpose of the scoping meeting is to discuss the Interconnection Request. The Parties shall further discuss whether the utility should perform a feasibility study or proceed directly to a system impact study, or a facilities study, or an interconnection agreement. If the Parties agree that a feasibility study should be performed, the utility shall provide the Interconnection Customer, as soon as possible, but not later than five Business Days after the scoping meeting, a feasibility study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

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- (3) The scoping meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested a feasibility study must return the executed feasibility study agreement within 15 Business Days. If the Parties agree not to perform a feasibility study, the utility shall provide the Interconnection Customer, no later than five Business Days after the scoping meeting, a system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

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- (4) Feasibility Studies, Scoping Studies, and Facility Studies may be combined for simpler projects by mutual agreement of the utility and the Parties.

(iii) Feasibility Study

- (1) The feasibility study shall identify any potential adverse system impacts that would result from the interconnection of the Small Generating Facility.
- (2) A deposit of the lesser of 50 percent of the good faith estimated feasibility study costs or earnest money of \$1,000 may be required from the Interconnection Customer.
- (3) The scope of and cost responsibilities for the feasibility study are described in the attached feasibility study agreement.
- (4) If the feasibility study shows no potential for adverse system impacts, the utility shall send the Interconnection Customer a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.
- (5) If the feasibility study shows the potential for adverse system impacts, the review process shall proceed to the appropriate system impact study(s).

(iv) System Impact Study

- (1) A system impact study shall identify and detail the electric system impacts that would result if the proposed Small Generating Facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.

- (2) If no transmission system impact study is required, but potential electric power Distribution System adverse system impacts are identified in the scoping meeting or shown in the feasibility study, a distribution system impact study must be performed. The utility shall send the Interconnection Customer a distribution system impact study agreement within 15 Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or following the scoping meeting if no feasibility study is to be performed.
 - (3) In instances where the feasibility study or the distribution system impact study shows potential for transmission system adverse system impacts, within five Business Days following transmittal of the feasibility study report, the utility shall send the Interconnection Customer a transmission system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required.
 - (4) If a transmission system impact study is not required, but electric power Distribution System adverse system impacts are shown by the feasibility study to be possible and no distribution system impact study has been conducted, the utility shall send the Interconnection Customer a distribution system impact study agreement.
 - (5) If the feasibility study shows no potential for transmission system or Distribution System adverse system impacts, the utility shall send the Interconnection Customer either a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or an executable interconnection agreement, as applicable.
 - (6) In order to remain under consideration for interconnection, the Interconnection Customer must return executed system impact study agreements, if applicable, within 30 Business Days.
 - (7) A deposit of the good faith estimated costs for each system impact study may be required from the Interconnection Customer.
 - (8) The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement.
 - (9) Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") – whether investor-owned or not – the Interconnection Customer may apply to the nearest utility (Transmission Owner, Regional Transmission Operator, or Independent utility) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.
- (v) Facilities Study
- (1) Once the required system impact study(s) is completed, a system impact study report shall be prepared and transmitted to the Interconnection Customer along with a facilities study agreement within five Business Days, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. In the case where one or both impact studies are

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determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.

- (2) In order to remain under consideration for interconnection, or, as appropriate, in the utility's interconnection queue, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within 30 Business Days.
- (3) The facilities study shall specify and estimate the cost of the equipment, engineering, procurement, and construction work (including overheads) needed to implement the conclusions of the system impact study(s).
- (4) Design for any required Interconnection Facilities and/or Upgrades shall be performed under the facilities study agreement. The utility may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the utility may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the utility, under the provisions of the facilities study agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the utility shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.
- (5) A deposit of the good faith estimated costs for the facilities study may be required from the Interconnection Customer.
- (6) The scope of and cost responsibilities for the facilities study are described in the attached facilities study agreement.
- (7) Upon completion of the facilities study, and with the agreement of the Interconnection Customer to pay for Interconnection Facilities and Upgrades identified in the facilities study, the utility shall provide the Interconnection Customer an executable interconnection agreement within five Business Days.

(d) Provisions that Apply to All Interconnection Requests

- (i) Reasonable Efforts
The utility shall make reasonable efforts to meet all time frames provided in these procedures unless the utility and the Interconnection Customer agree to a different schedule. If the utility cannot meet a deadline provided herein, it shall notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.
- (ii) Disputes
 - (1) The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
 - (2) In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

4.2.3 If the dispute has not been resolved within five Business Days after receipt of the Notice, either Party may contact a mutually agreed upon third party dispute resolution service for assistance in resolving the dispute.

- (3) The dispute resolution service will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute.
- (4) Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.
- (5) If neither Party elects to seek assistance from the dispute resolution service, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of the agreements between the Parties, or it may seek resolution at the Commission.

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(iii) Interconnection Metering

Except as otherwise required by Rule 3664, any metering necessitated by the use of the Small Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Commission requirements or the utility's specifications.

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(iv) Commissioning tests

Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards, including IEEE1547.1 2005"IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems". The utility must be given at least five Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests. The utility shall be compensated by the Interconnection Customer for its expense in witnessing level 2 and Level 3 commissioning tests.

(v) Confidentiality

- (1) Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." All design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.

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- (2) Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce an agreement between the Parties. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under agreements between the Parties, or to fulfill legal or regulatory requirements.

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- A. Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

B. Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

(3) Notwithstanding anything in this article to the contrary, if the Commission, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence, the Party shall provide the requested information to the Commission, within the time provided for in the request for information. In providing the information to the Commission, the Party may request that the information be treated as confidential and non-public by the Commission and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to the Commission. The Party shall notify the other Party when it is notified by the Commission that a request to release Confidential Information has been received by the Commission, at which time either of the Parties may respond before such information would be made public.

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(vi) Comparability

The utility shall receive, process, and analyze all Interconnection Requests in a timely manner as set forth in this document. The utility shall use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Small Generating Facility is owned or operated by the utility, its subsidiaries or affiliates, or others.

(vii) Record Retention

The utility shall maintain for three years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

(viii) Interconnection Agreement

After receiving an interconnection agreement from the utility, the Interconnection Customer shall have 30 Business Days or another mutually agreeable time-frame to sign and return the interconnection agreement, or request that the utility file an unexecuted interconnection agreement with the Commission. If the Interconnection Customer does not sign the interconnection agreement, or ask that it be filed unexecuted by the utility within 30 Business Days, the Interconnection Request shall be deemed withdrawn. After the interconnection agreement is signed by the Parties, the interconnection of the Small Generating Facility shall proceed under the provisions of the interconnection agreement.

(ix) Coordination with Affected Systems

The utility shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The utility will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the utility in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A utility which may be an Affected System shall cooperate with the utility with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

(x) Capacity of the Small Generating Facility

- (1) If the Interconnection Request is for an increase in capacity for an existing Small Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Small Generating Facility.
- (2) If the Interconnection Request is for a Small Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.
- (3) The Interconnection Request shall be evaluated using the maximum rated capacity of the Small Generating Facility.

(xi) Insurance

- (1) For systems of 10 kW or less, the Customer, at its own expense, shall secure and maintain in effect during the term of the Agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$300,000 for each occurrence. For systems above 10 kW and up to 2 MW, Customer, at its own expense, shall secure and maintain in effect during the term of the Agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$2,000,000 for each occurrence. Insurance coverage for systems greater than 2 MW shall be determined on a case-by-case basis by the utility and shall reflect the size of the installation and the potential for system damage.
- (2) Except for those solar systems installed on a residential premise which have a design capacity of 10 kW or less, the utility shall be named as an additional insured by endorsement to the insurance policy and the policy shall provide that written notice be given to the utility at least thirty (30) days prior to any cancellation or reduction of any coverage. Such liability insurance shall provide, by endorsement to the policy, that the utility shall not be liable for the payment of premium of such insurance. For all solar systems, the liability insurance shall not exclude coverage for any incident related to the subject generator or its operation.
- (3) Certificates of Insurance evidencing the requisite coverage and provision(s) shall be furnished to utility prior to the Date of Interconnection of the Generation System. Utilities shall be permitted to periodically obtain proof of current insurance coverage from the generating customer in order to verify proper liability insurance coverage. Customer will not be allowed to commence or continue interconnected operations unless evidence is provided that satisfactory insurance coverage is in effect at all times.

(e) Level 1 10 kW Inverter Process

The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions.

- (i) The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the utility.

- (ii) The utility acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- (iii) The utility evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- (iv) Within 15 days the utility shall conduct an initial review, which shall include the following screening criteria:
 - (1) For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation or calculated for the line section. A line section is that portion of a utility's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.
 - (2) If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.
 - (3) If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.
 - (4) No construction of facilities by the utility on its own system shall be required to accommodate the Small Generating Facility.
 - (5) Provided all the criteria in Section 5.4 are met, unless the utility determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the utility approves and executes the Application and returns it to the Customer.
 - (6) After installation, the Customer returns the Certificate of Completion to the utility. Prior to parallel operation, the utility may inspect the Small Generating Facility for compliance with standards, which may include a witness test, and may schedule appropriate metering replacement, if necessary.
 - (7) The utility notifies the Customer in writing or by fax or e-mail that interconnection of the Small Generating Facility is authorized within five business days. If the witness test is not satisfactory, the utility has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The utility is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion.
 - (8) Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the utility, that contact information must be provided on the Application.

Attachment 1 - Definitions

Business Day – Monday through Friday, excluding Federal Holidays.

Distribution System – The utility's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades – The additions, modifications, and upgrades to the utility's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the service necessary to effect the Interconnection Customer's operation of on-site generation. Distribution Upgrades do not include Interconnection Facilities.

Interconnection Customer – Any entity, including the utility, any affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the utility's System.

Interconnection Facilities – The utility's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the utility's System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades.

Interconnection Request – The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, [We will have a Tariff] or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the utility's System.

Party or Parties – The utility, Interconnection Customer, or any combination of the above.

Point of Interconnection – The point where the Interconnection Facilities connect with the utility's System.

Small Generating Facility – The Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Facilities not owned by the Interconnection Customer.

Study Process – The procedure for evaluating an Interconnection Request that includes the Level 3 scoping meeting, feasibility study, system impact study, and facilities study.

System – The facilities owned, controlled, or operated by the utility that are used to provide electric service under the Tariff.

Upgrades – The required additions and modifications to the utility's System at or beyond the Point of Interconnection. Upgrades do not include Interconnection Facilities.

Attachment 2 - Level 1 10 kW Inverter Process

Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

Processing Fee

A fee of _____ must accompany this Application.

Interconnection Customer

Name:

Contact Person:

Address:

City: State: Zip:

Telephone (Day): (Evening):

Fax: E-Mail Address:

Engineering Firm (If Applicable):

Contact Person:

Address:

City: State: Zip:

Telephone:

Fax: E-Mail Address:

Contact (if different from Interconnection Customer)

Name:

Address:

City: State: Zip:

Telephone (Day): (Evening):

Fax: E-Mail Address:

Owner of the facility (include % ownership by any electric utility):

Small Generating Facility Information

Location (if different from above):

Electric Service Company:

Account Number:

Small Generator 10 kW Inverter Process

Inverter Manufacturer: _____ Model

Nameplate Rating: (kW) (kVA) (AC Volts)

Single Phase _____ Three Phase _____

System Design Capacity: _____ (kW) _____ (kVA)

Prime Mover: Photovoltaic Reciprocating Engine Fuel Cell

Turbine Other

Energy Source: Solar Wind Hydro Diesel Natural Gas

Fuel Oil Other (describe)

Is the equipment UL1741 Listed? Yes _____ No _____

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: _____ Estimated In-Service Date: _____

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Small Generator Interconnection Procedures (SGIP), or the QRU has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type Certifying Entity

- 1.
- 2.
- 3.
- 4.
- 5.

Interconnection Customer Signature _____

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating

Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed. I further agree to relinquish my claims to any REC that will be generated with my equipment as part of this agreement.

Signed: _____

Title: _____ Date: _____

Contingent Approval to Interconnect the Small Generating Facility

(For Company use only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: _____

Title: Date: _____

Application ID number: _____

Company waives inspection/witness test? Yes _____ No _____

Attachment 3

Certification Codes and Standards

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems
(including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV)
Systems

NFPA 70 (2005), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for
Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated
Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low
Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment
Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

Attachment 4

Certification of Small Generator Equipment Packages

- 1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.

Attachment 5

Terms and Conditions for Level 1 Interconnections -- Small Generating Facility No Larger than 10kW

1.0 Construction of the Facility

The Interconnection Customer (the "Customer") may proceed to construct the Small Generating Facility when the utility approves the Interconnection Request (the "Application") and returns it to the Customer.

2.0 Interconnection and Operation

The Customer may operate Small Generating Facility and interconnect with the utility's electric system once all of the following have occurred:

- 2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and
- 2.2 The Customer returns the Certificate of Completion to the utility, and
- 2.3 The utility has completed its inspection of the Small Generating Facility. All inspections must be conducted by the utility, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The utility shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place.
- 2.4 The utility has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

Deleted: to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes.

3.0 Safe Operations and Maintenance

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4.0 Access

The utility shall have access to the disconnect switch and metering equipment of the Small Generating Facility at all times. The utility shall provide reasonable notice to the Customer when possible prior to using its right of access.

5.0 Disconnection

The utility may temporarily disconnect the Small Generating Facility upon the following conditions:

- 5.1 For scheduled outages per notice requirements in the utility's tariff or Commission rules.
- 5.2 For unscheduled outages or emergency conditions pursuant to the utility's tariff or Commission rules.

- 5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.
- 5.4 The utility shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

6.0 Indemnification

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other **Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party**, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.0 Insurance

Customer, at its own expense, shall secure and maintain in effect during the term of this Agreement, liability insurance with a combined single limit for bodily injury and property damage of not less than \$300,000 each occurrence. Such liability insurance shall not exclude coverage for any incident related to the subject generator or its operation. The utility shall be named as an additional insured under the liability policy unless the system is a solar system installed on a premise using the residential tariff and has a design capacity of 10 kW or less. The policy shall include that written notice be given to the utility at least thirty (30) days prior to any cancellation or reduction of any coverage. A copy of the liability insurance certificate must be received by the utility prior to plant operation.

Deleted: ed

Certificates of Insurance evidencing the requisite coverage and provision(s) shall be furnished to utility prior to Date of Interconnection of the Generation System. Utilities shall be permitted to periodically obtain proof of current insurance coverage from the generating customer in order to verify proper liability insurance coverage. Customer will not be allowed to commence or continue interconnected operations unless evidence is provided that satisfactory insurance coverage is in effect at all times.

Deleted: A copy of any renewals shall be sent to the utility's Authorized Operating Representative so that the utility is always in possession of a current Certificate of Insurance.

8.0 Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred.

In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

9.0 Termination

The agreement to operate in parallel may be terminated under the following conditions:

9.1 By the Customer

By providing written notice to the utility.

9.2 By the utility

If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.3 Permanent Disconnection

In the event this Agreement is terminated, the utility shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

9.4 Survival Rights

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

10.0 Assignment/Transfer of Ownership of the Facility

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the utility.

3666. – 3699. [Reserved]